

D0 Trigger Study Group Requirements for Trigger Database

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January 15, 2006

Preamble

Access to the trigger database (TDB) is currently restricted mostly to Trigger Masters (TM), mostly because of the high training requirements needed to use the “live” online TDB without causing problems. Therefore offline users who are developing new triggers using the trigger simulation tools, such as trigsim, have to rely on TMs to generate the xml file for them. Any further trigger list modification, past the generated xml file from TMs, is then a difficult task and often requires intervention from experts. Trigsim users should be able to create a new trigger list as a subset of existing one, or modify current one.

Requirements

- Basic functionality (highly desirable):
 1. It should be possible for up to about 20 users to work on the development of triggers at any given time. Each user is expected to spend about 3-6 months working with a specialized trigger list.
 2. Allow trigsim users to combine existing Level 1, 2 and 3 trigger terms from the TDB to form new triggers and trigger lists.
 3. Allow trigsim users to create new Level 1, 2 and 3 trigger terms using existing scripts and tools from the TDB.
 4. The interface should allow trigsim users to make a local copy of the trigger list they are working on.
- Expanded functionality (desirable):
 1. Allow users to archive the final version of their trigger list (e.g. As a xml file).
 2. Make it possible for users to read in an existing trigger list (e.g. From a xml file), make modifications and archive the new version.

Time scale

The new tool/interface would be useful already for the ongoing v14 trigger verification. However, its main use will be the development of the first Run IIb trigger list and this means it should be available to trigsim users by the end of February 2006.

References

- [1] https://plone4.fnal.gov/P1/D0TDB/docs/D0TDB_requirements_final.pdf